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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/708,114	11/06/2000	Bruce A. Fairman	SONY-14500	9111

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EXAMINER

HUYNH, KIM NGOC

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 08/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/708,114	Applicant(s) FAIRMAN, BRUCE A.	
	Examiner Kim Huynh	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE filed 7/23/04 ~~3/1/04~~.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on ^{7/23/04 KRA}~~3/1/04~~ has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-46 excluding claims 5, 8, 13, 16, 21, 24, 29, 32, 36, 39, 43 and are rejected under 35 U.S.C. 102(b) as being anticipated by Dalton et al. (US 5,515,329), provided in earlier communication.

a. Claim 1, Dalton discloses a method of buffering data within a FIFO having steps of receiving a stream of data from input FIFO 12, storing the data in DRAM 15, obtaining a series of program instruction (software in the DSP, col. 1, ll. 35, from external logic or from the host computer) and performing those instructions on the stored data to generate a stream of output data (col. 1, ll. 23-47). Please note the term external in the external the paging register 19 and external logic implies that these elements are external to the DSP but are within the FIFO system.

Claims 2-4, program instructions are obtained from an application or control circuit (from host computer 17 and devices providing external logic and source code of the DSP) and the stream of data is received from bus structure (connected between the FIFOs 12-13 to the DSP or from/to the data bus to the FIFOs 12-13 for transmitting the data).

Claims 6-7, transmitting the output stream from buffer interface (output FIFO 13), generating the output stream include synchronizing the stream to a time reference (col. 1, ll. 38-42, relatively short time).

Claims 9-12, 14-15 repeat the limitations of claims 1-4 and 6-7 and therefore are rejected accordingly.

b. Claims 17, 33 and 40, Dalton discloses an apparatus for buffering data within in a FIFO memory system 10 by the inclusion of a digital signal processor (DSP 11) in the FIFO system. The FIFO system including input and output interface circuits (input FIFO 12 and output FIFO 13 for receive/transmit stream of data, a data memory (DRAM 15) for storing the stream of data, and an executing unit (arithmetic unit within the DSP 11 and/or the external paging register 9) for executing program instructions. The instructions are stored within the DSP (col. 1, l. 46), the external logic register and the host computer. Dalton discloses that the DSP having its own software (col. 1, ll. 46); therefore the DSP would inherently include a memory for storing the software and a means for obtaining the software for execution.

Claims 17-20, 22-24, 25-28, 30-31, 33-35, 37-38, 40-42, and 44-45 and repeat the limitations of claims 2-4 and 6-7 above and therefore are rejected accordingly.

4. Claims 1-46 excluding claims 5, 8, 13, 16, 21, 24, 29, 32, 36, 39, 43 are also rejected under 35 U.S.C. 102(b) as being anticipated by Johnson (US 6,732,223).

Similarly, Johnson discloses a FIFO buffer system having command within for buffering the FIFO (see Figs. 1 and 7) having logic memory (control logic block), data memory 68, input output interfaces and bus structure (connecting to data and address lines), execution unit (decoders).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2182

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 5, 8, 13, 16, 21, 24, 29, 32, 36, 39, 43 and 46 are rejected under 35

U.S.C. 103(a) as being obvious over Dalton or Johnson.

Dalton and Johnson do not explicitly disclose the bus structure and time cycle of the Ethernet 1394 bus structure. Dalton also discusses using SCSI bus structure for connecting the device to a host computer (page 10). Johnson expresses the need for handling data transferring data at high speed.

As well know by one having ordinary skill in the art and admitted by applicant in the background, IEEE 1394 is part of the SCSI family and a standard for high performance serial bus to implement inexpensive high speed serial bus architecture supporting both asynchronous and isochronous format data transfer required.

It would have been obvious to one having ordinary skill in the art to utilize the IEEE 1394 bus structure in the bus structure of Dalton in order to implement an inexpensive yet high performance serial bus for transferring image data in the circuit of Dalton.

Response to Arguments

7. Applicant's arguments with respect to claims 1-46 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Wu et al. (US 6,029,221) and Kimura et al. (US 5,537,601) disclose a DSP with external interrupt controller and programmable DSP respectively.

Kamiya (US 5,948,053) discloses a basic construction with essential elements for a conventional DSP in Fig. 1.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kim Huynh whose telephone number is (703) 308-1678.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kim Huynh
Primary Examiner
Art Unit 2182

KH
August 13, 2004